

(19) World Intellectual Property  
Organization  
International Bureau



10/509215



(43) International Publication Date  
9 October 2003 (09.10.2003)

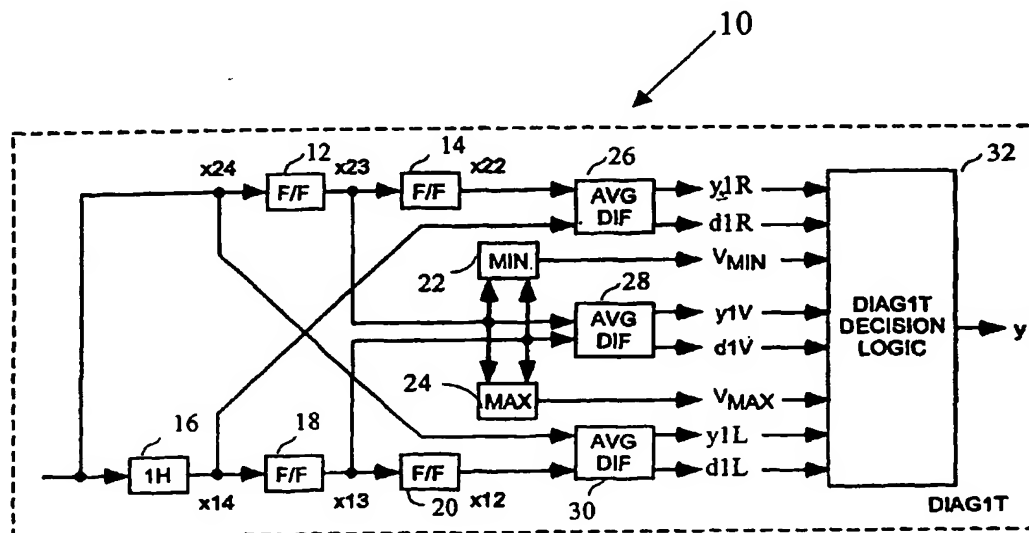
PCT

(10) International Publication Number  
WO 2003/084206 A3

- (51) International Patent Classification<sup>7</sup>: H04N 7/01 (74) Agents: TRIPOLI, Joseph, S. et al.; c/o THOMSON multimedia Licensing Inc., 2 Independence Way, Suite 2, Princeton, NJ 08540 (US).
- (21) International Application Number: PCT/US2003/008614
- (22) International Filing Date: 19 March 2003 (19.03.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/367,821 27 March 2002 (27.03.2002) US
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report

[Continued on next page]

(54) Title: UPCONVERSION WITH NOISE CONSTRAINED DIAGONAL ENHANCEMENT



(57) Abstract: A method of interpolating a given output pixel value when upconverting interlaced video to progressive video includes the step of determining averages (28, 30, 26) for vertically adjacent pixels, left diagonally adjacent pixels, and right diagonally adjacent pixels respectively for the given output pixel and the step of determining differences (28, 30, 26) between the vertically adjacent pixels, the left diagonally adjacent pixels, and the right diagonally adjacent pixels respectively. The method further selected (32, 42) as an interpolated value for the given output pixel among the averages based on a minimal difference of an absolute value among the differences respectively and further constrains (32, 44) the interpolated value to the value of the average of the vertically adjacent pixels (y1V) if a value for the given output pixel is not between a range of values defined by adjacent pixels above and below the given output pixel or if the selected minimal difference is not unique.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(88) Date of publication of the international search report:**  
25 March 2004

10/509215

## INTERNATIONAL SEARCH REPORT

Intern application No.

PCT/US03/08614

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : H04N 7/01		
US CL : 348/448, 441, 451, 452, 458, 421.1; 382/298, 299, 300, 266		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
U.S. : 348/448, 441, 451, 452, 458, 421.1; 382/298, 299, 300, 266		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,093,721 A (RABII) 03 March 1992, All.	1-15
A	US 5,347,599 A (YAMASHITA et al) 13 September 1994, All.	1-15
A	US 4,967,263 A (DIETERICH) 30 October 1990, All.	1-15
A, P	US 6,515,706 B1 (THOMPSON et al) 04 February 2003, All.	1-15
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search		Date of mailing of the international search report
12 December 2003 (12.12.2003)		20 JAN 2004
Name and mailing address of the ISA/US		Authorized officer
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